

Listing of Claims:

1. (Currently Amended) A valve device comprising:

a valve housing body having a passage for fluid;

a valve guide arranged in the valve housing body;

a valve stem sliding in the valve guide to open and close a

5 valve; and

a scraper provided on a passage side of the valve guide, the
scraper having a lower portion with an inner diameter and an
outer diameter which decrease toward a lower end to thereby form
a truncated cone-cutting cone-shaped cutting edge, the inner
10 diameter of the cutting edge including a straight bore parallel
to the valve stem at an end thereof.

2. (Currently Amended) The valve device according to
claim 1,

wherein ~~an~~ the inner diameter of the cutting edge of the
scraper is 0.2-1.0 mm larger than an outer diameter of the valve
stem.

3. (Previously Presented) The valve device according to
claim 1,

wherein a distance between an end of the scraper and a passage side end of the valve guide is longer than a stroke of the valve.

4. (Currently Amended) The valve device according to claim 1, wherein

an outer diameter of the valve stem is smaller in a section corresponding to the scraper than in a section corresponding to the valve guide; and

an the inner diameter of the cutting edge of the scraper is equal to an outer diameter of the valve stem in a section corresponding to the valve guide.

5. (Previously Presented) The valve device according to claim 1,

wherein a seal member that applies gripping force onto an outer circumference of the valve stem is provided at a passage side end of the valve guide.

6. (Previously Presented) The valve device according to claim 1,

wherein the fluid is exhaust gas recirculated to an internal combustion engine for performing EGR, and the valve device is an EGR valve.

7. (Previously Presented) An EGR valve device comprising:
a valve housing body;

a hydraulic actuator provided on the valve housing body to
open and close a valve;

5 an electromagnetic proportional actuator provided on the
valve housing body; and

a hydraulic control valve advanced and retracted by the
electromagnetic proportional actuator, the hydraulic control
valve controlling hydraulic pressure acting on the hydraulic
10 actuator by balancing a force of the electromagnetic proportional
actuator and a hydraulic force; wherein

the hydraulic actuator and the hydraulic control valve are
integrated with the valve housing body.

8. (Previously Presented) The EGR valve device according to
claim 7,

wherein the valve housing body is separated into a valve
section including the valve and a drive section including the
5 hydraulic actuator and the hydraulic control valve; and

fixing sections for the valve section and the drive section
are provided on a circle around an axis of the valve.

9. (Previously Presented) The EGR valve device according to
claim 7,

wherein the hydraulic actuator is provided with a stopper for preventing a piston from disengaging from a hydraulic cylinder.

10. (Previously Presented) The EGR valve device according to claim 7,

wherein the hydraulic actuator is a reciprocating-piston type hydraulic actuator;

5 the hydraulic control valve is a spool hydraulic control valve; and

the hydraulic actuator and the hydraulic control valve are arranged in parallel with a same advancing/retreating direction.

11. (Previously Presented) An EGR valve device comprising:
a valve housing body;

a valve guide provided inside the valve housing body for guiding a slide movement of a valve stem; and

5 a nozzle arranged toward the valve guide and having an orifice for jetting cooling oil.

12. (Previously Presented) The EGR valve device according to claim 11,

wherein a hydraulic pressure supplied to the nozzle is generated by an internal combustion engine equipped with the EGR

5 valve device during an operation of the internal combustion engine.

13. (Previously Presented) The EGR valve device according to claim 11, further comprising:

a hydraulic actuator for opening and closing a valve; and
a hydraulic control valve for controlling the hydraulic

5 actuator; wherein

a hydraulic pressure supplied to the nozzle is a hydraulic pressure branched from a hydraulic circuit for supplying the hydraulic pressure to the hydraulic control valve.

14. (Previously Presented) The EGR valve device according to claim 11, further comprising:

a hydraulic actuator for opening and closing a valve; and
a hydraulic control valve for controlling the hydraulic

5 actuator; wherein

a hydraulic pressure supplied to the nozzle is a hydraulic pressure branched from a hydraulic circuit connecting the hydraulic actuator and the hydraulic control valve.

15. (New) The valve device according to claim 1, wherein the straight bore has a length of 1 mm.

16. (New) The valve device according to claim 1, wherein the straight bore defines a cylindrical surface around the end of the valve stem.

17. (New) The valve device according to claim 1, wherein the inner diameter of the lower portion defines an inner conical surface and the outer diameter of the lower portion defines an outer conical surface, the straight bore being situated between a lower edge of the inner conical surface and a lower edge of the outer conical surface.

18. (New) The valve device according to claim 1, wherein the inner diameter of the lower portion of the scraper, including the straight bore, is spaced apart from the end of the valve stem around the circumference thereof.